A Guide to the Biosolids Risk Assessments for the EPA Part 503 Rule

U.S. Environmental Protection Agency Office of Wastewater Management Washington, DC

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Foreword

The U.S. Environmental Protection Agency's (EPA's) Part 503 rule provides comprehensive requirements for the use or disposal of biosolids generated during the process of treating municipal wastewater. Formulation of the final rule benefitted greatly from the input provided by the regulated and environmental communities, and especially the group of scientific experts who worked closely with EPA in revising the proposed rule. The final rule is the result of a very effective combination of public comment, scientific risk assessment, and informed risk management.

The Part 503 rule underwent an extensive multi-pathway risk assessment for evaluating and setting limits to manage pollutants in biosolids. The scientific approach used in developing the Part 503 requirements attempted to determine an acceptable level of pollutants that could be added to the environment in biosolids and differs from policy-based approaches used in some other countries.

This "Guide to the Part 503 Risk Assessment" has been prepared to help the public, wastewater treatment authorities, state regulators, and scientists better understand the risk assessment process. It helps explain many of the steps that were taken over a nine-year period to develop the rule. many of the issues that arose, how they were resolved, and how the risk assessment process was used in deriving the requirements in the final rule. The issues discussed in greater detail in the Guide are reflective of the questions that have been asked most often and are provided as examples to increase the reader's understanding of the nature and conservativeness of the Part 503's risk assessment process.

The Guide emphasizes the importance of collecting relevant data and using appropriate models and assumptions (field-verified whenever possible) in the establishment of pollutant limits and management practices that protect public health and the environment from reasonably anticipated adverse effects of pollutants in biosolids. The Guide shows that the Part 503 rule is not only conservative and protective, but also realistically implementable.

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